TST Update

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Topics

- **Events Calendar**
- **Supporting SW Development**
- **Federate Testing**
- **External Events**
- **HLA Education/Outreach**
- **SIW Plans and Papers**
- **ASTT HLA Related Research**

Events Calendar

10-11 Dec	AMG-22
10 Dec	MOM Tech Exchange
11 Dec	ADAPTOR and Time Management Tech Exchanges
30 Dec	HLA 1.3 Specifications Draft 1 Released
5 Jan	Selected Beta Releases of RTI 1.3
12 Jan 98	SCS Western Multiconference, San Diego
14 Jan	CCSIL Tech Exchange
21 Jan	HLA 1.3 Specifications Draft2 Released
5 Feb	HLA 1.3 Specifications Final Released
11 Feb	AMG-23
13 Feb	OM Tech Exchange
3-6 Mar	NATO SGMS and MNWG, The Hague
8 Mar	Pre-SIW HLA Tutorials, Orlando
9-13 Mar	SIW, Orlando
15-16 Apr	AMG-24
20-24 Apr	Training at European Space Agency
27 Apr	Pre-ITEC Tutorials, Lausanne, Switzerland
28-30 Apr	International Training and Education Conference (ITEC)
1-3 June	DMSO Industry Days, Tyson's Corner, VA

Supporting SW Development

- **Development of supporting software is on track**
  - Runtime infrastructure (RTI) and
  - Object model support tools including
    - Object Model Development Tool (OMDT), Object Model Library (OML) and Object Model Data Dictionary (OMDD)
- **Reports on these are included in the AMG-23 agenda under RTI and Object Model Update presentations**
  - RTI JAVA beta tests November - January
  - OM Tools initial release in October
  - Selected RTI 1.3 beta releases in January and OM Tool releases in February
- **Next RTI and OMTool releases**
  - RTI 1.3 will be released in March; implements 1.3 Specification
  - Next version of OM Tools (OMDT, OML, OMDD) will also be released in March
    - OMDT releases will be limited to the AEgis tool
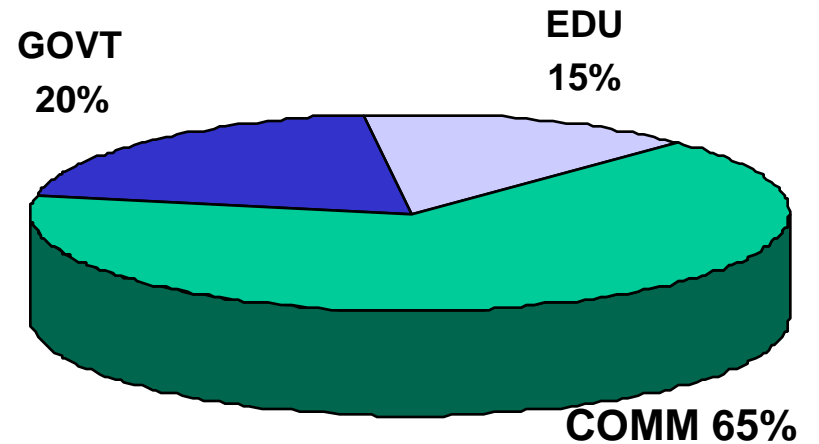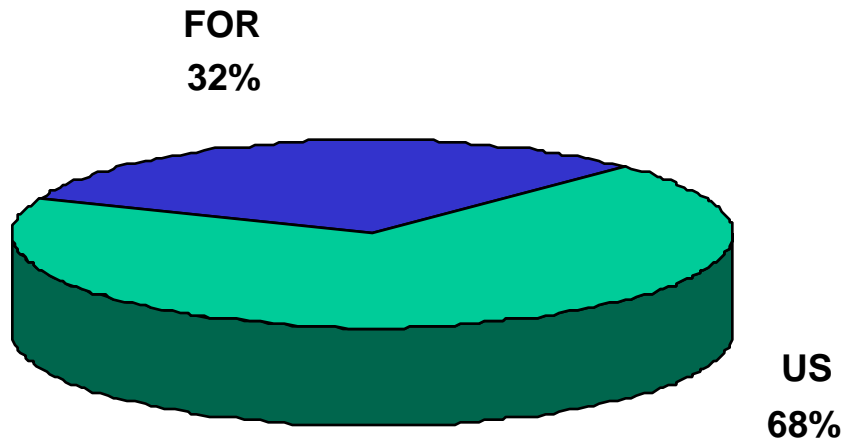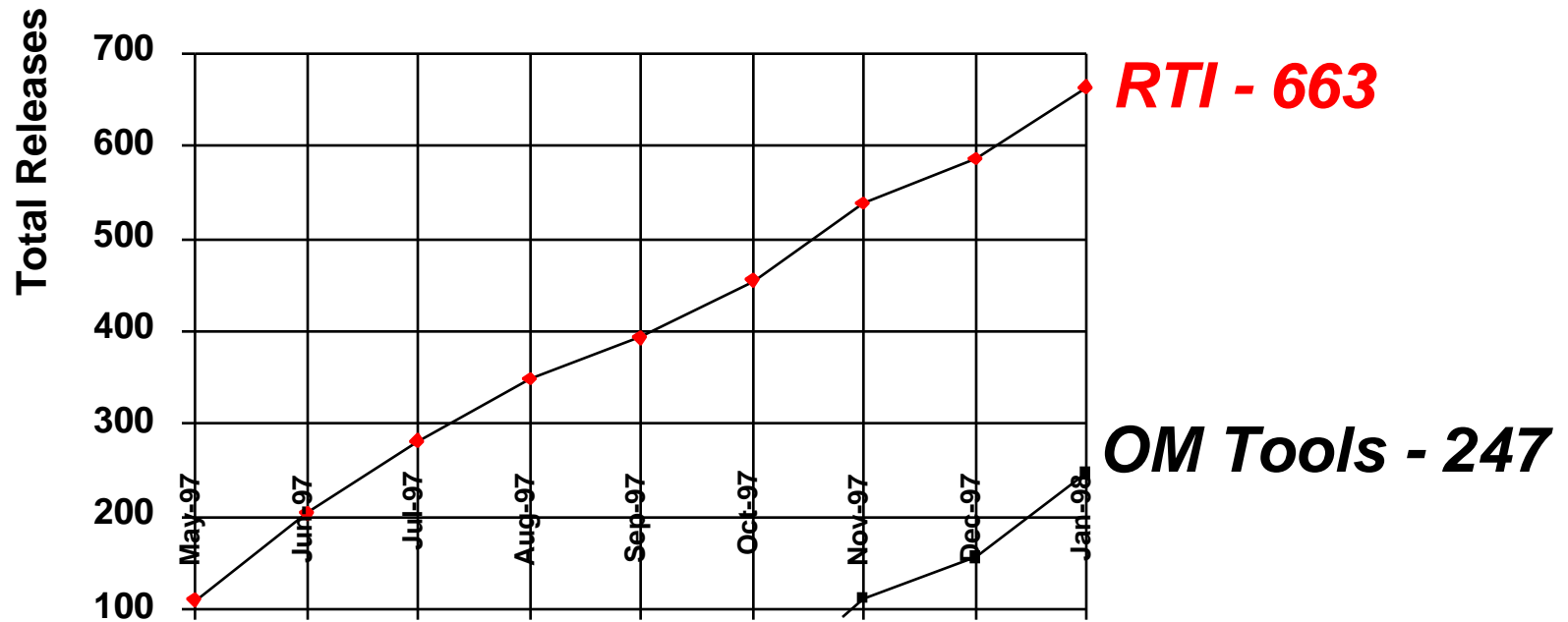
New Tool Development

- **Development of additional tools has been initiated**
  - **Continuation of same basic strategy**
    - **DMSO develops initial releases, supported by open data standards to promote commercial developments**
    - **Development and testing will be done with alpha testing groups**
    - **Based on these results tools assessed to be generally useful and supportable will be generally released**
  - **New focus on tools to support later phases of the federation life cycle**
    - **Current tools focus largely on OM development**
    - **New tools focus on**
      - **Federation execution planning and verification**
      - **Runtime management and data collection**
  - **Development efforts just beginning; presentation on tools will be included in AMG agendas as tool work progresses**

New Tool Development

- **Federation execution planning and verification tools**
  - **Federation Execution Planners Workbook (FEPW)Tool - VTC**
    - **Automated support for the completion and exchange of completed FEPWs**
    - **Supported by an FEPW data interchange format (DIF)**
  - **Federation Verification Tool - GTRI**
    - **Tools to assess federate use of FOM in accordance with federation plans**
    - **Will use OMT DIF and (FEPW DIF)**
- **Federation execution runtime tools**
  - **Federation Management Tool - MITRE/MaK**
    - **Productization of JTC federation management tool**
  - **Federation Data Collection Tool - VTC**
    - **SBIR phase two**
    - **Builds on lessons learned from STOW CDI**

HLA Software Releases
through January 1998

Total Releases

700
600
500
400
300
200
100

May-97 Jun-97 Jul-97 Aug-97 Sep-97 Oct-97 Nov-97 Dec-97 Jan-98

RTI - 663

OM Tools - 247

FOR
32%

US
68%

GOVT
20%

EDU
15%

COMM 65%

7

Federate Testing

- **Federate Testing Team**
  - GTRI (Process and Tool Development), and ABTech (Operational Testing)
- **Federate testing began October 31**
  - Turnkey Test Management System; demonstrated here at AMG-23 at noon and during late afternoon technical exchange time period
    - A semi-automated system to manage the federate conformance test process, which serves as a central source for test information: Procedures, Guides, Submission Formats, Examples
    - Web-based, on-line test preparation (for federates) and test management (for Certification Authority (CA)) integrated with test tools
    - Since initiation, 7 systems have begun the testing process
    - Three have successfully completed

HLA Help Desk

- **MSOSA cell for HLA has been operational since May**
- **Focal point for inquiries to DMSO on HLA**
- **hla@msis.dmso.mil e-mail goes to the HLA cell**
  - **responds directly**
    - **general inquiries**
  - **refers**
    - **training requests**
    - **policy questions**
    - **RTI-specific technical questions**
  - **logs and tracks**
- **Increasing level of activity and changing nature of requests**
  - **continue to have basic questions from new users**
  - **increasingly questions demonstrate more in-depth and technical knowledge of HLA**

HLA Help Desk Activity Report
through January 1998

Category

	Total Calls (Jan)	Total Calls (to date)	Total Closed (to date)	Total Open (to date)	Foreign Requests (**Jan**)	Foreign Requests (to date)
HLA						
-Basic Information	**25**	**164**	**164**	0	3	24
-Documentation	**0**	**30**	**30**	0	0	5
-Compliance Query	**4**	**23**	**23**	0	1	1
-Testing	**2**	**9**	**9**	0	1	2
Forwarded Queries						
-RTI/SW	**33**	**228**	**228**	0	6	55
-Policy	**1**	**9**	**9**	0	0	0
-Training	**3**	**49**	**49**	0	2	4
-Web Page	**5**	**22**	**22**	0	0	3
TOTAL						

HLA Education/Outreach

- **Integrated training/outreach program is underway**
  - **To request or register for a scheduled training event go to the DMSO HLA home page at http://hla.dmso.mil under the topic "HLA Education and Training"**
  - **Holding a series of 'Regional Training Events' at different locations throughout the coming year**
- **Initiated "hands-on" practicum; classes scheduled approximately twice a month for the coming year**
- **Small number of on-site sessions to support specific communities**
- **Incorporated a set of HLA modules in the DMSO Staff Officer Course; courses are scheduled for the coming year**
- **Training and education in conjunction with professional/ standards organizations**
  - **Spring SIW sessions planned**
  - **Initial interactive CD material prepared ('Introduction to HLA') copies available**

Training Schedule

Upcoming Regional Training Events

Southwest	5-6 Jan	Nellis AFB (completed)
Southeast	19-20 Feb	Orlando, FL
Mid Atlantic	26-27 Mar	Alexandria, VA
West	21-22 Apr	Menlo Park, CA
Northeast	19-20 May	Boston, MA
Midwest	25-26 Jun	Wright-Patterson AFB

Currently seeking hosts for future training events; contact Mike Lightner (**mlightner@aegisrc.com**) if you are willing to host an event.

Additional Training Modules in Development

- **Added training modules are in development which provide a more detailed look at topics of interest to HLA users**
  - Based on feedback from current training efforts
- **Topics being addressed**
  - Adapting your simulation to use HLA
  - Developing and operating an HLA federation
  - HLA testing
  - Using automated tools to develop HLA object models
- **Lecture presentation format planned; half day sessions each**
- **These sessions will be coupled with regional training events or other educational opportunities after March**
  - Organizations interested in hosting sessions contact Mike Lightner (mlightner@aegisrc.com)
- **SIW Plans and Papers**
- **ASTT HLA Related Research**

SIW Papers

Papers submitted to the Spring '98 Simulation Interoperability Workshop (SIW) broadly represent HLA topics, as follows:

<ins>Authors</ins>	<ins>Title</ins>	<ins>SIW Paper Nr.</ins>
Process		
Dahmann,Lutz	Persistent Federations	98S-SIW-059
Zimmerman, Kamsickas, Schandua,Youngblood	FEDEP Roles and Products	98S-SIW-016
Lutz	FEDEP V1.1	98S-SIW-236
OM Tools		
Hammond, Dey, Scrudder, Merkin	Populating the HLA Object Model Data Dictionary—A Bottom-Up Approach	98S-SIW-075
Bouwens, R. Miller, Harkrider,	Object Model Development: Tools and Techniques	98S-SIW-142

continued

SIW Papers

Authors	Title	SIW Paper Nr.
RTI		
Bachinsky, Mellon	**RTI 2.0 Architecture**	**98S-SIW-150**
McGarry, Bachinsky	**An Analysis of RTI-s Performance in the STOW 97 ACTD**	**98S-SIW-229**
Services -- DDM		
Cohen, Kemkes	**User Level Measurement of DDM Scenarios**	**98S-SIW-072**
Morse	**The Data Distribution Model Template**	**98S-SIW-172**
Van Hook, Calvin	**Data Distribution Management in RTI 1.1**	**98S-SIW-206**

continued

SIW Papers

Services -- OM

Authors	Title	SIW Paper Nr.
Bouwens, Harrell, Shen	A Bridging Federation to Support Weapon Model Assessment in a Multi-Level Secure Environment	98S-SIW-197

Applications

Authors	Title	SIW Paper Nr.
McLean, Loper, Esslinger, Burkhardt	Understanding Federate-RTI Service Interaction During Federate Compliance Testing	98S-SIW-055
Prosser, Painter, Clements, Lutz	JWARS and the CMMS	98S-SIW-137
Barham	Implementing a Simple HLA Federate: Lessons Learned from a DIS Perspective	98S-SIW-120

ASTT Scaleable Executing Systems Efforts

- **Parallel Processing in Support of System Scalability**
  - **Larry Mellon, SAIC**
  - **Infrastructure modules tailored to JSIMS requirements with new technology and algorithms**

- **Advanced Time Management for Large-Scale Distributed Systems**
  - **Richard Fujimoto, Georgia Tech**
  - **A time management approach with both performance and application controlled causality guarantees**

- **DEVS Formalism as a Framework for HLA Predictive Contract Methodology**
  - **Bernie Zeiglar, University of Arizona**
  - **Using DEVS/HLA to provide a formal specification to predictive contracts and providing performance/accuracy tradeoff studies**
  - **SIW Tutorial: "DEVS/HLA -- A High Level Modeling Environment"**
    - **March 12, 1998 (Wednesday), 7:00 PM**

- **For more information on ASTT:**
  - **Gary Bundy, 703-883-5560, gbundy@mitre.org; http://www.astt.com**